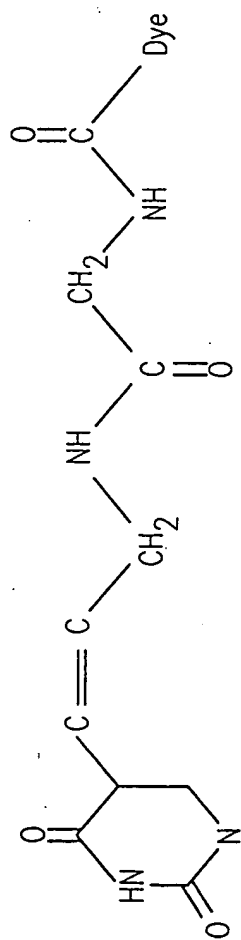
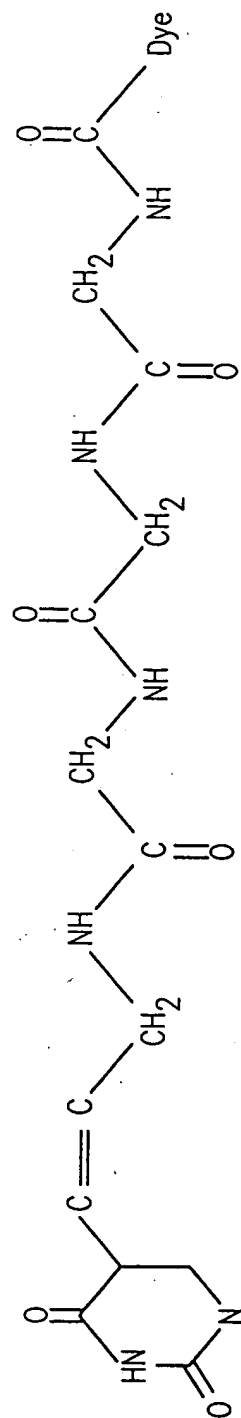


FIG. 1

Diglycinyllinker



Tetraglycinyllinker



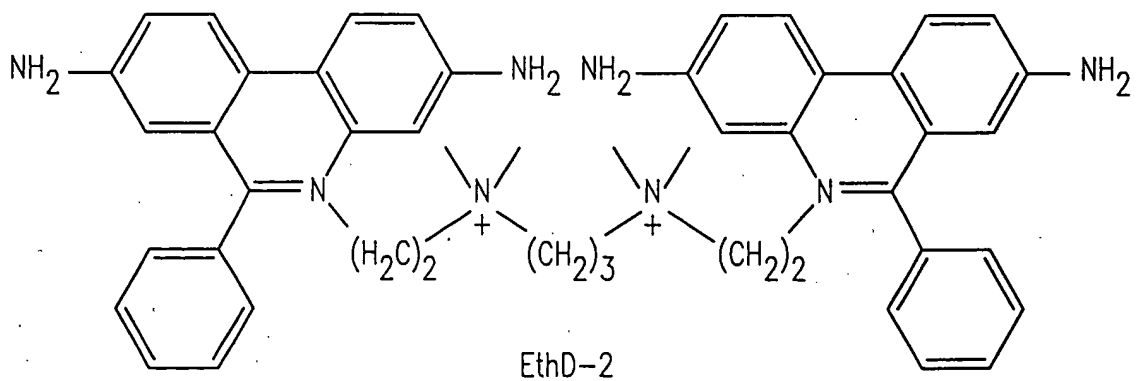
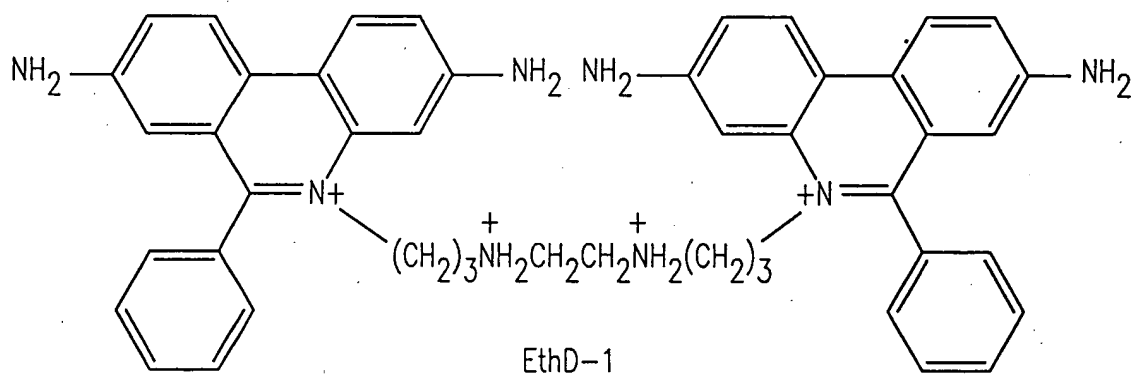
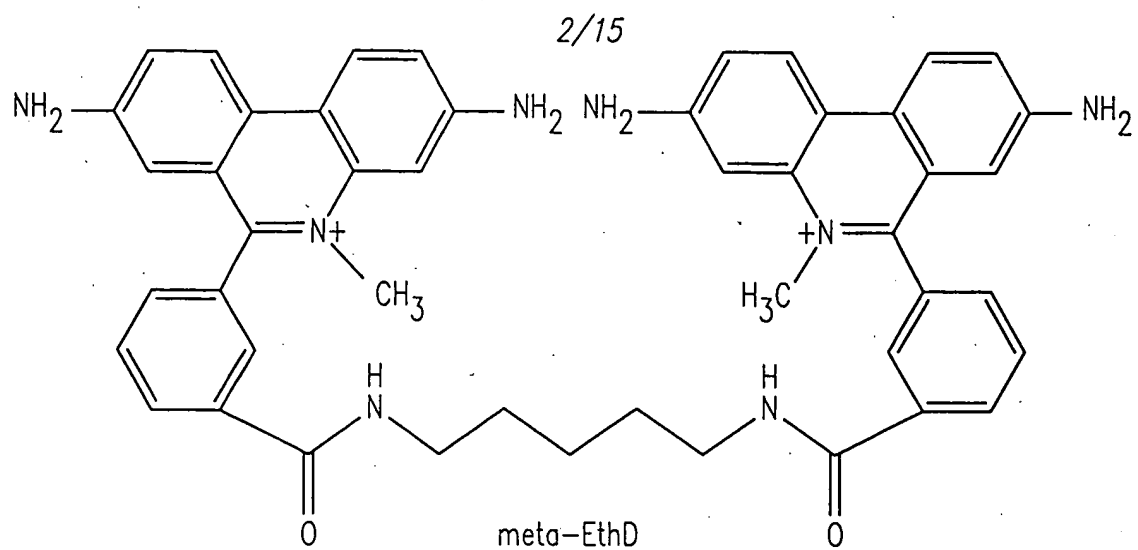
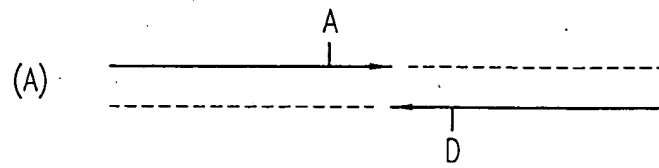


FIG. 2



A=Energy Acceptor
D=Energy Donor

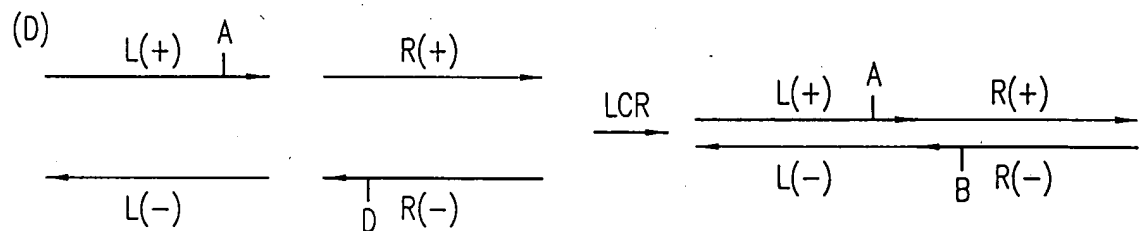
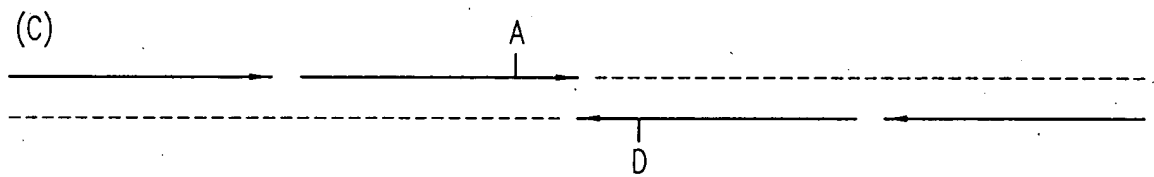
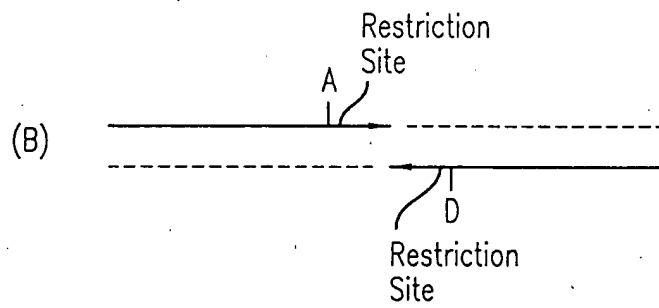


FIG. 3

Target Sequence

— GCGACCTGCGAATGCTATGGATCAGGCTAGCCA —
— CGCTGGACGCTTACGATACCTAGTCCGATCGGT —

(A)

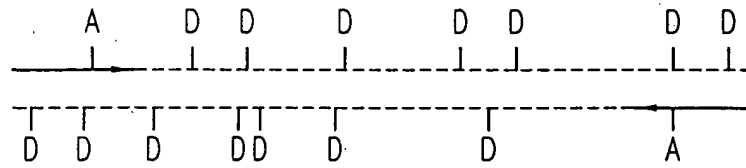
Donor
|
— GCGACCTGCGAATGCTATggatcaggctagcca
cgtggacgcttacgataCCTAGTCCGATCGGT
|
Accepter

(B)

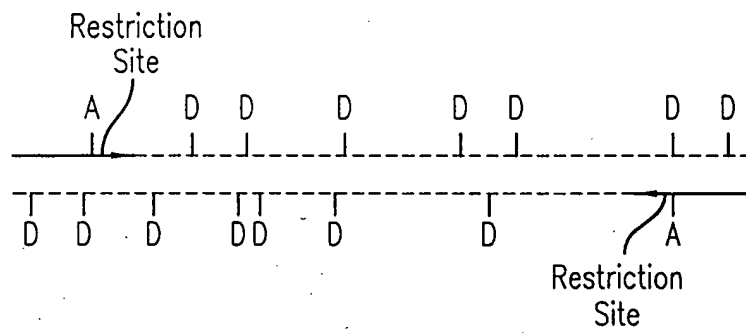
Donor
|
— GCGACCTGCGAATGCTATggatcaggctagcca
cgtggacgcttacgataacctAGTCCGATCGGT
|
Accepter

FIG. 4

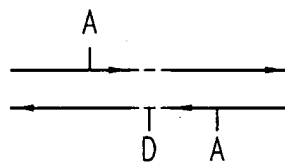
(A) PCR



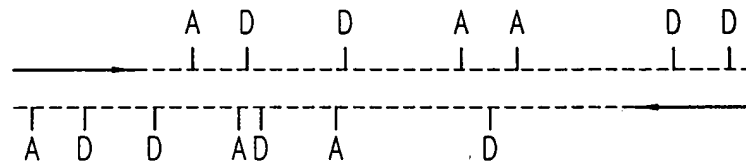
(B) SDA



(C) GAP-LCR



(D) PCR



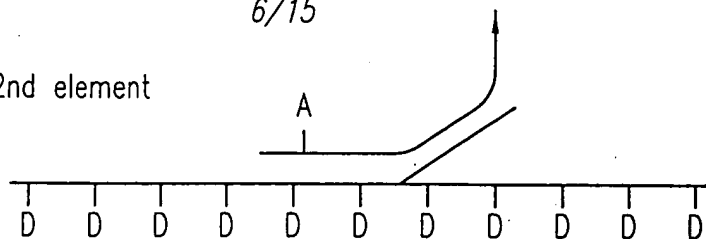
A=Energy Acceptor

D=Energy Donor

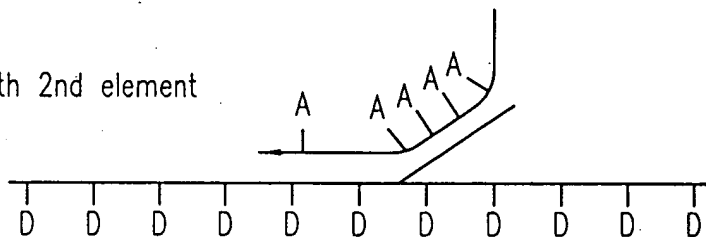
FIG. 5

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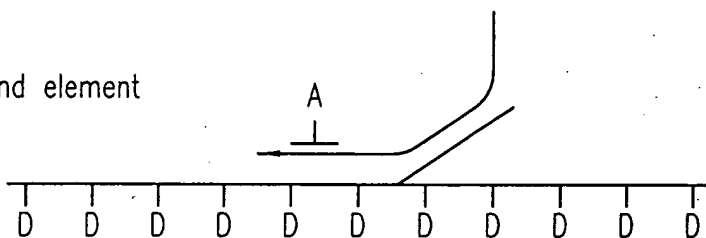
(A) Primer with 2nd element



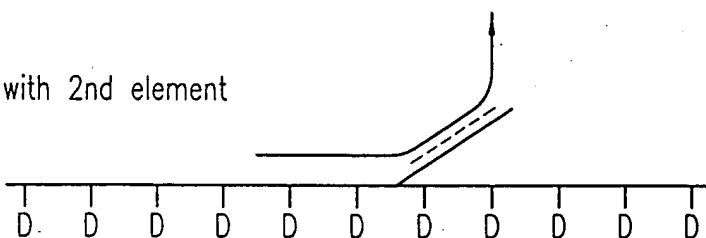
(B) Nucleotide with 2nd element



(B) Probe with 2nd element



(B) Intercalators with 2nd element



D=Energy Donor

A=Energy Acceptor

FIG. 6

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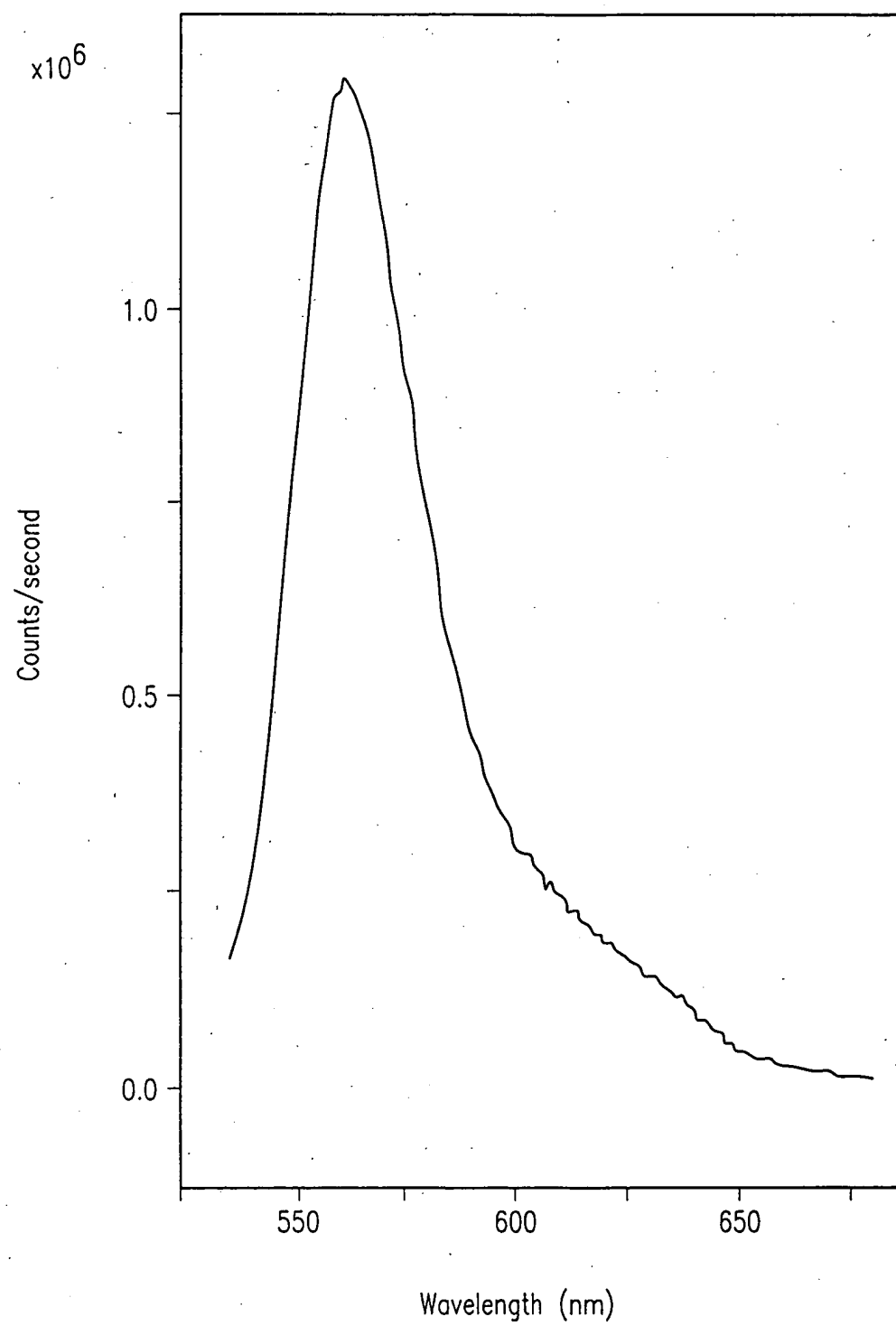


FIG. 7

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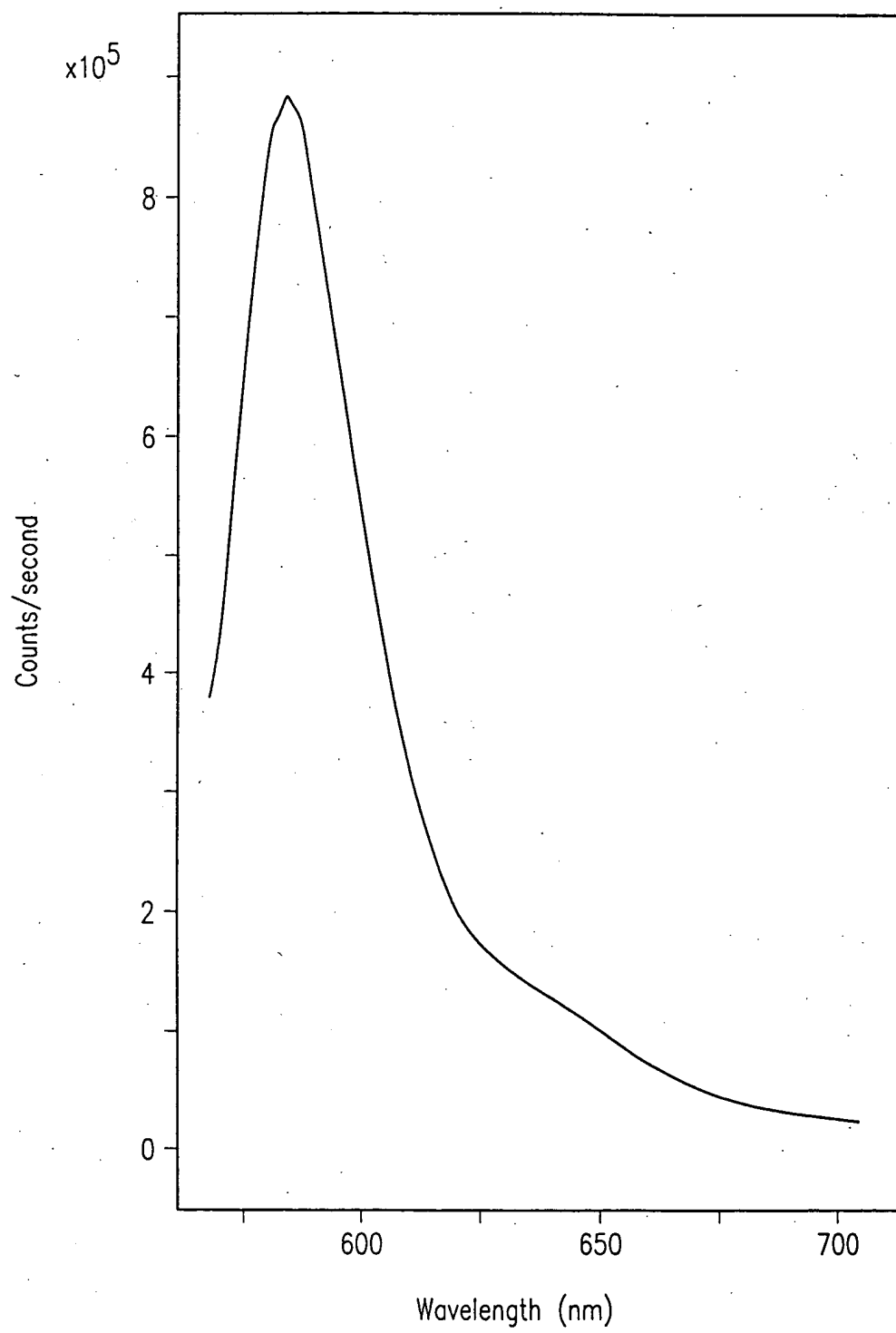


FIG. 8

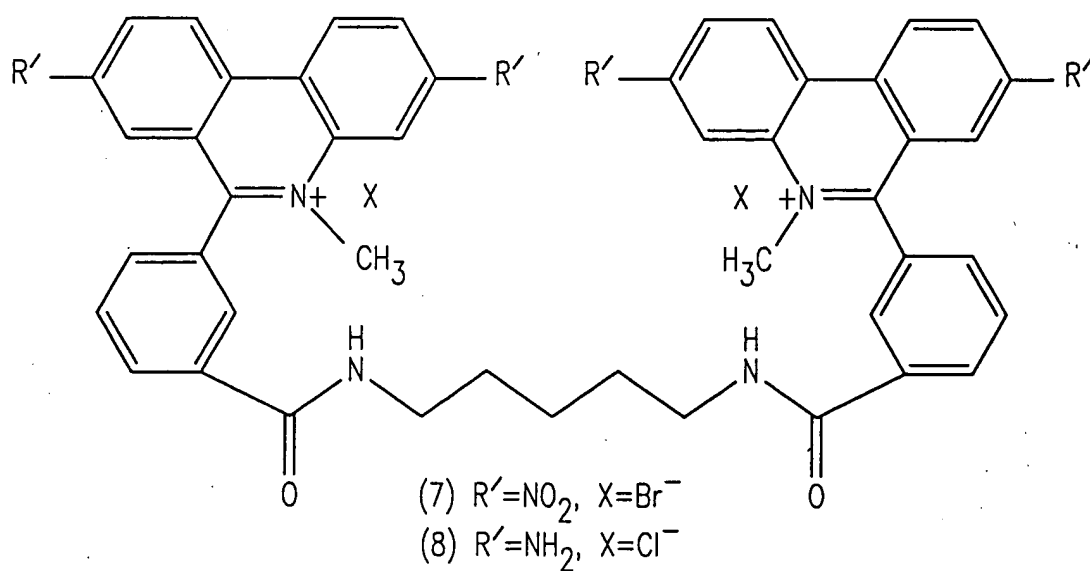
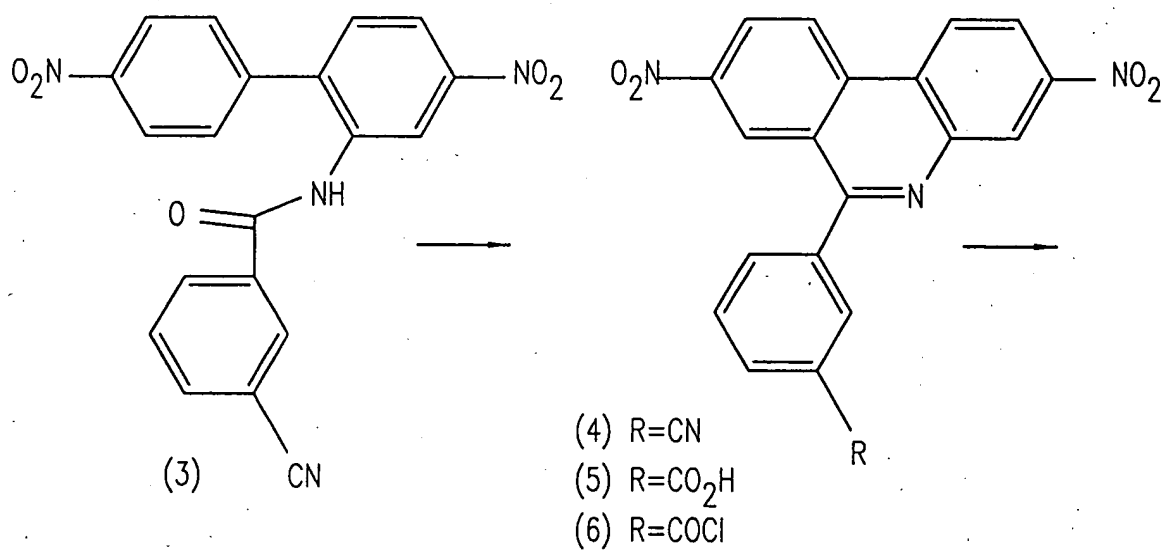
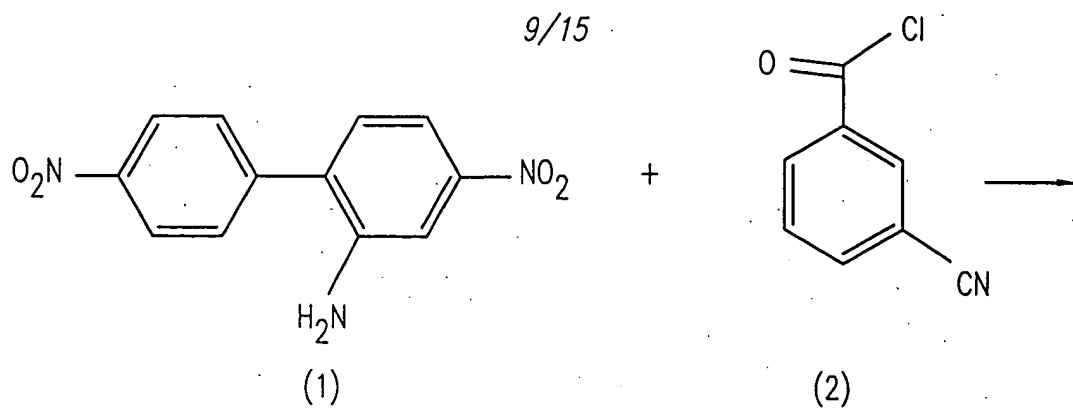
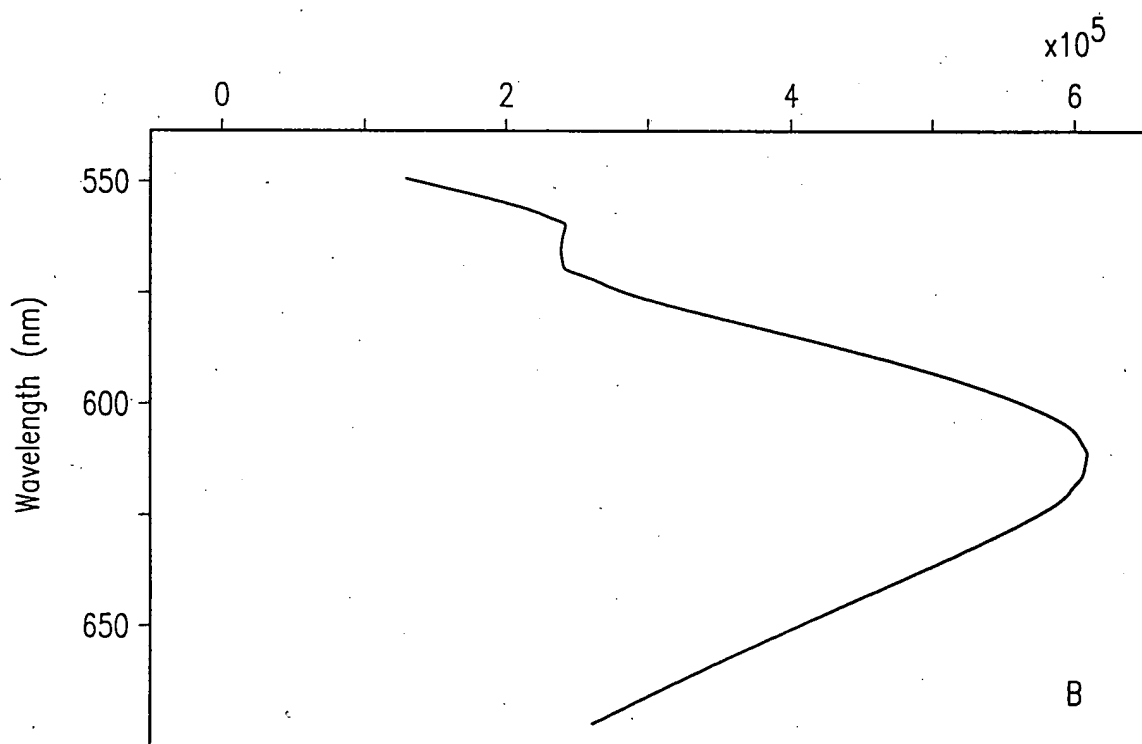
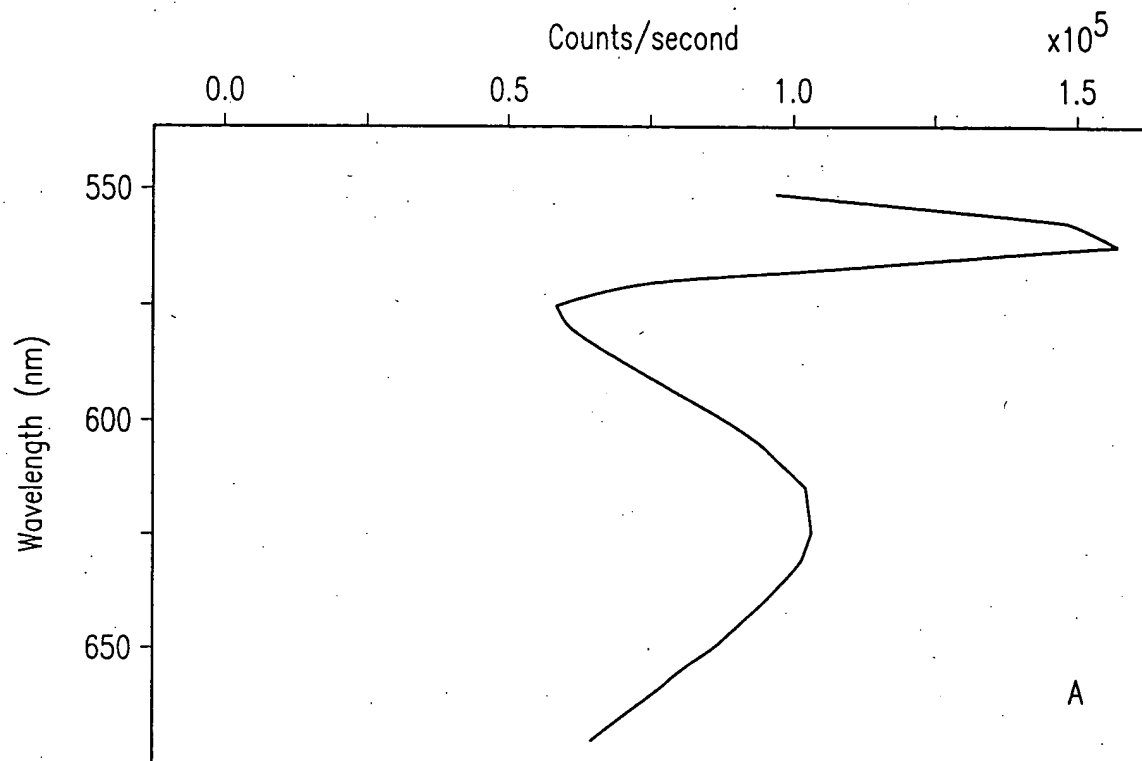


FIG. 9

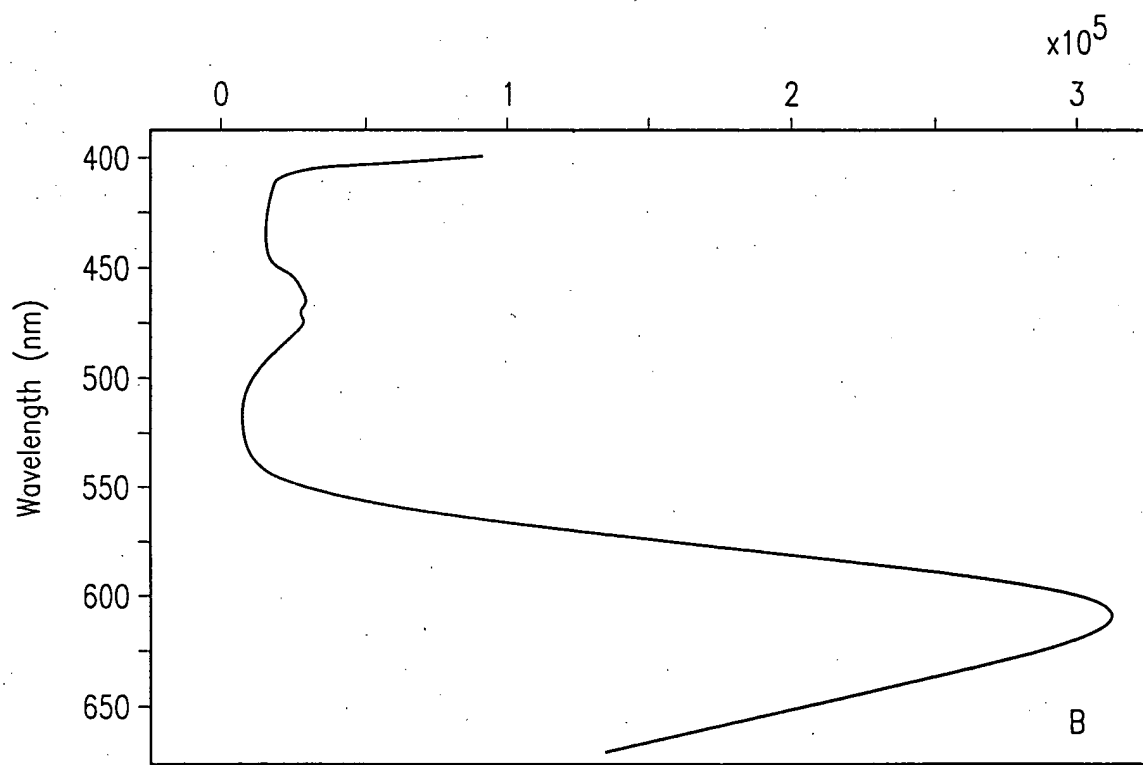
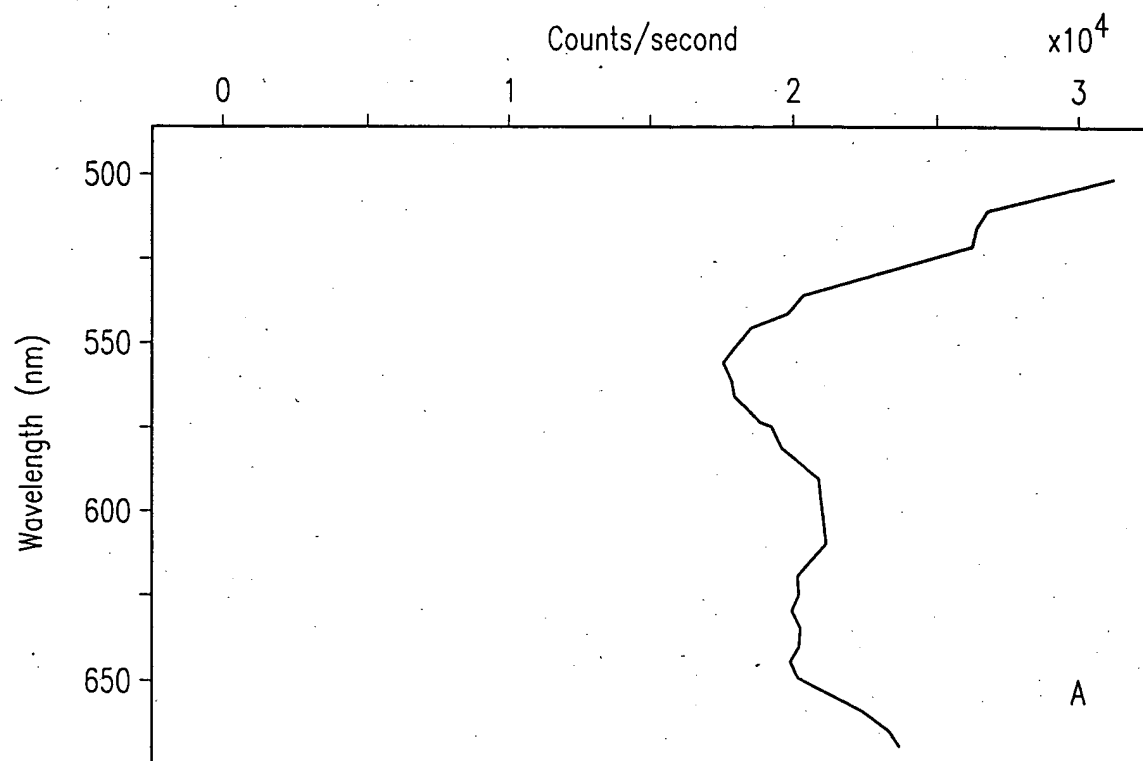
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Illumination at 472 nm

FIG. 10

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Illumination at 350 nM

FIG. 11

HIV Anti-sense Amplicon

Forward Primer

catgatccgg atgggagggtg

Hybridization Probe

taatgggtg agtatccctg cctaactct

catgatccgg atgggagggtg ggtctgaaac gataatgggtg agtatccctg cctaactcta ttaactatcc ggatgtgc
 gtactagccc taccctccac ccagactttg ctattaccac tcataggac ggattgagat aagtgatagg cctacacg

agat aagtgatagg cctacacg

Reverse Primer

FIG. 12

poly A tail



U=Uridine (ribonucleotide)

T=Thymidine (deoxyribonucleotide)

Q=Inosine (ribonucleotide)



C) Incorporation of primer binding site by template dependent extension of analyte

Reverse Transcriptase



CNAC

D) Removal of CNAC and binding of primer with promoter sequence

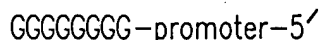


FIG. 13

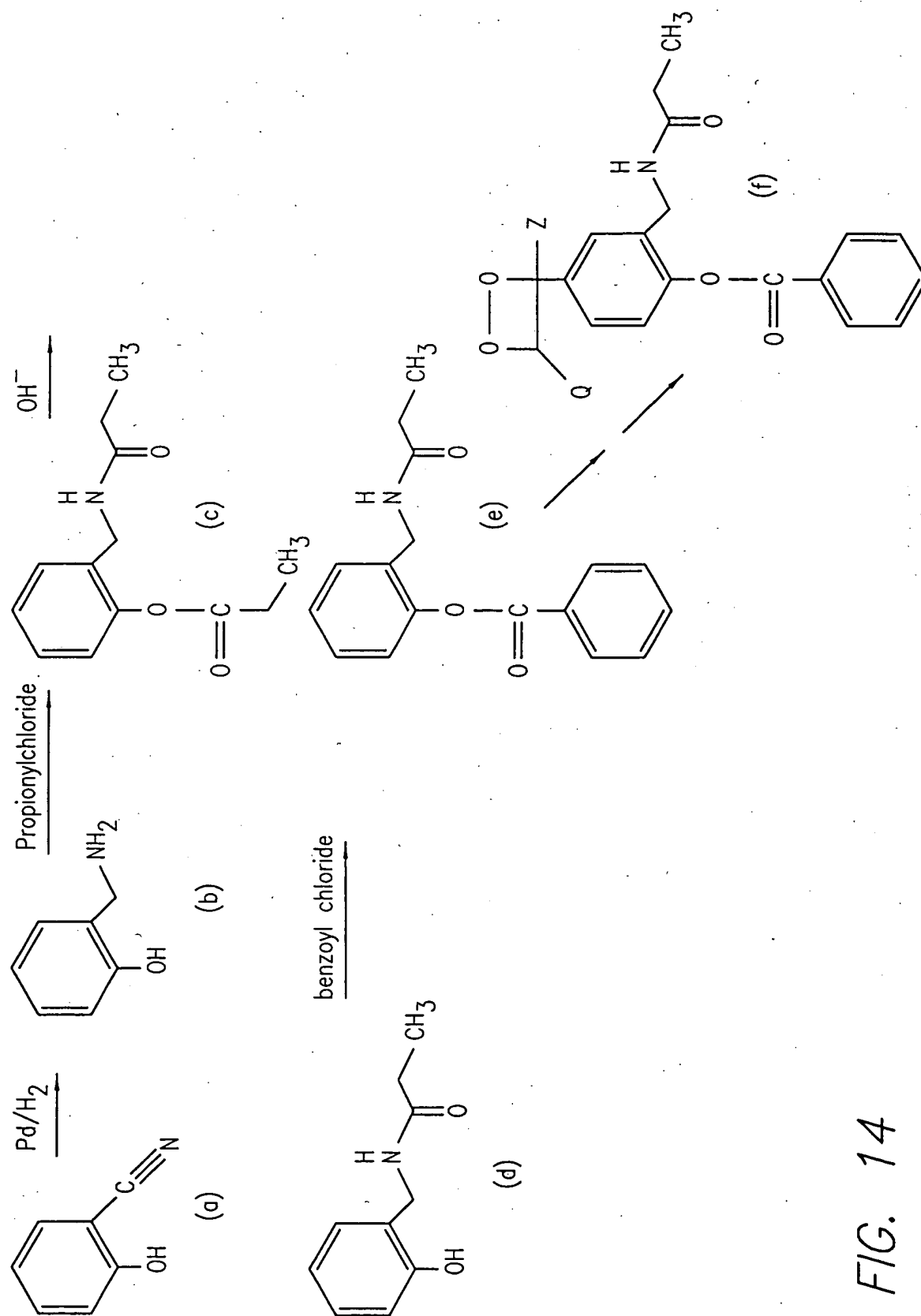


FIG. 14

FIG. 15

